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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,360	01/30/2001	Christopher J. Chase	2000-0660	1500

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EXAMINER

MURPHY, RHONDA L

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/772,360	Applicant(s) CHASE ET AL.	
	Examiner Rhonda L Murphy	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/04/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show MAN "10" in Figure 1 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "18" has been used to designate both PER and the link between MSP 3 and CUST 3 PREMISES. Corrected drawing sheets are required in

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reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6-8, 10-12, 15 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Baum et al. (US 6,771,673).

Regarding claims 1, 7 and 10, Baum discloses the steps of: (a) receiving at first platform (**aggregation unit 1010**) one frame from one sending customer (col. 8, line 17); one frame containing a Virtual LAN identifier (VLAN) field (col. 17, lines 6-9); (b) overwriting VLAN field in one frame with a customer descriptor that identifies the sending customer (col. 8, lines 17-22; col. 16, lines 66-67; col. 17, lines 1-12); (c) using the customer descriptor to map a path from the first platform to the second platform (col. 8, lines 30-31); and (d) routing the frame on the path (col. 8, lines 30-31).

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Regarding claims 2 and 11, Baum discloses the step wherein using the customer descriptor to map the path includes mapping the customer descriptor to a customer Virtual Private Network (VPN) (col. 8, lines 66-67; col. 9, lines 1-2).

Regarding claims 3 and 12, Baum discloses the steps of providing the customer descriptor with a quality of service indicator that specifies the quality of service level afforded to the accepted frame (col. 8, lines 60-65); and transmitting the frame to the receiving customer with the quality of service level (col. 16, lines 22-25) specified by the quality of service indicator provided within the customer descriptor (col. 16, lines 59-67; col. 17, lines 1-16).

Regarding claims 6 and 15, Baum discloses the step wherein using the customer descriptor to map the path includes mapping the customer descriptor to one of a plurality of different service networks (Fig. 8; col. 11, lines 2-7).

Regarding claim 8, Baum discloses the step wherein modifying the frame includes overwriting a source address field within the information frame (col. 8, lines 17-23).

Regarding claim 25, Baum discloses the steps of (a) receiving at the first platform (**aggregation unit 1010**) at least one frame from the sending member (col. 8, lines 17-22) (b) modifying one frame with a customer descriptor that identifies the group of members (col. 8, lines 17-22, 50-54); (c) mapping the customer descriptor to a path in the network between the first and second platforms (col. 8, lines 30-31); and (d) routing the frame on the path to the receiving member served by the second platform (Fig. 8, **814**; col. 8, lines 30-31).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum in view of Lloyd et al. (US 2003/0039212).

Regarding claims 4 and 13, Baum discloses the steps as set forth in the rejections of claims 1 and 10 as described above, and wherein using the customer descriptor to map the path includes mapping the customer descriptor to a corresponding one of a plurality of Permanent Virtual Circuits (col. 18, line 50).

Baum fails to explicitly disclose mapping the customer descriptor to a corresponding one of a plurality of Frame Relay and ATM Permanent Virtual Circuits. However, Lloyd teaches the above mentioned limitation wherein **packets from the sender to the receiver is implemented with a virtual circuit, including a frame relay PVC, an ATM PVC or MPLS** paragraph 302, page 15.

In view of this, having the teachings of Baum and then given the teaching of Lloyd, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify Baum's system with Lloyd's uses of Frame Relay and ATM Permanent Virtual Circuits, so as to enable transmission to a plurality of networks.

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6. Claims 5, 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum in view of Miki et al. (US 6,771,662).

Regarding claims 5, 9 and 14, Baum discloses the steps as set forth in the rejections of claims 1 and 10 as described above.

Baum fails to explicitly disclose mapping the customer descriptor to one of a plurality of Multi-Protocol Label Switching tunnels and modifying the frame by inserting a shim header containing the customer descriptor.

However, Miki teaches the step wherein using the customer descriptor to map the path includes mapping the customer descriptor to one of a plurality of Multi-Protocol Label Switching tunnels (col. 6, lines 19-41). Additionally, Miki teaches modifying the frame by inserting a shim header containing the customer descriptor (col. 11, lines 64-67).

In view of this, having the teachings of Baum and then given the teaching of Miki, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify Baum's system with Miki's mapping of the customer descriptor to one of a plurality of Multi-Protocol Label Switching tunnels and modifying the frame with a shim header, in order to increase transmission rate and link layer 2 and layer 3 information.

7. Claims 16-18, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum in view of Tsukamoto et al. (US 6,498,794).

Regarding claim 16, Baum discloses an Ethernet protocol network comprising a plurality of platforms (**aggregation unit 1010**) coupled to an infrastructure (see Fig. 8), each platform serving at least one customer for statistically multiplexing frames onto the infrastructure from said one customer (col. 17, lines 33-36) and for statistically de-multiplexing frames off the infrastructure to the one customer (it is known in the art that a multiplexed frame is de-multiplexed to recover the original signal) wherein each platform sending a frame overwrites said frame with a customer descriptor that identifies the sending customer (col. 8, lines 17-22; col. 16); and routes the frame on a path obtained by mapping the customer descriptor to such path (col. 8, lines 30-31).

Baum fails to explicitly disclose the infrastructure as being a fiber ring infrastructure.

However, the fiber ring infrastructure of the above mentioned limitation is taught by Tsukamoto in col. 5, lines 59-62; **a ring network composed of optical fiber**.

In view of this, having the teachings of Baum and then given the teaching of Tsukamoto, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify Baum's system with Tsukamoto's fiber ring infrastructure, so as to obtain the benefits associated with utilizing a fiber infrastructure to transmit at an optimal rate.

Regarding claim 17, Baum further discloses the apparatus wherein the receiving platform (Fig. 8, **814**) maps the customer descriptor through a provider edge router (Fig. 8, **816**) to a customer Virtual Private Networks (VPN) (col. 8, lines 66-67; col. 9, lines 1-2; col. 11, lines 17-24).

Regarding claim 18, Baum further discloses the apparatus wherein the customer descriptor includes quality of service level information (col. 8, lines 60-65).

Regarding claim 21, Baum further discloses the apparatus wherein the receiving platform (Fig. 8, **814**) maps the customer descriptor through a provider edge router (**816**) to one of a plurality of different service networks (Fig. 8; col. 11, lines 2-7).

Regarding claim 22, Baum further discloses the apparatus wherein the sending platform (**aggregation unit 1010**) overwrites a Virtual LAN Identifier (VLAN) field within the frame with the customer descriptor (col. 16, lines 66-67; col. 17, lines 1-12).

Regarding claim 23, Baum further discloses the apparatus wherein the sending platform (**aggregation unit 1010**) overwrites a source address field within the information frame with the customer descriptor (col. 8, lines 17-23).

8. Claims 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum and Tsukamoto as applied to claim 16 above, and further in view of Miki (US 6,771,662).

Regarding claim 20 and 24, Baum and Tsukamoto disclose the limitations set forth in the rejection of claim 16, as described above.

Baum and Tsukamoto fail to explicitly disclose the following limitations taught by Miki: an apparatus wherein the receiving platform maps the customer descriptor through a provider edge router to one a plurality of Multi-Protocol Label Switching tunnels associated with the receiving customer (col. 6, lines 19-41); and the sending platform

inserts into the frame a shim header containing the customer descriptor (col. 11, lines 64-67).

In view of this, having the teachings of Baum and Tsukamoto, and then given the teaching of Miki, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to incorporate Baum and Tsukamoto's teachings with Miki's in order to increase transmission rate and link layer 2 and layer 3 information.

Allowable Subject Matter

9. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 19, Prior art does not show the apparatus wherein the receiving platform maps the customer descriptor through an ATM switch router to a corresponding one of a plurality of Frame Relay and ATM Permanent Virtual Circuits associated with the receiving customer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda L Murphy whose telephone number is (703) 308-9557. The examiner can normally be reached on Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang bin Yao can be reached on (703) 308-7583. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rlm

KWANG BIN YAO
PRIMARY EXAMINER

